APPENDIX 2. AUTOMATED SOLID-PHASE EXTRACTION PROCEDURE USING MILLILAB 1A WORKSTATION

Millilab 1A Solid-Phase Extraction Procedure
[mL, millileters; mL/min: milliliters per minute]

Estimated time for samples : 11 hours

Date : December 1, 1998

Tube name	**Tube type**
sample	PORT
elution	TUBE
splspike	TUBE
washprobe	TUBE
methelute	TUBE
Organic_waste	TUBE

Element name	**Element type**
Seppak+	CARTRIDGE

Port name	**Liquid name**
Syr1v1m1	sample
Syr1v1m2	sample
Syr1v1m3	sample
Syr1v1m4	sample
Syr1v2m1	sample
Syr1v2m2	sample
Syr1v2m3	sample

Syr1v2m4	sample
Syr1v3m1	sample
Syr1v3m2	sample
Syr1v3m3	sample
Syr1v3m4	sample
Syr1v4m1	sample
Syr1v4m2	sample
Syr1v4m3	distilled1
Syr2v1	distilled2
Syr2v2	ethyl acetate
Syr2v3	methanol

Pump name	**Syringe size**
Pump 1	5.0 mL
Pump 2	1.0 mL

Reagent name	**Liquid name**
Reagent_1	methanol
Reagent_2	d10-phenanthrene
Reagent_3	Not used
Reagent_4	ethyl acetate

Loop size

4 mL

Technique name		**Technique parameters**
(1)	WASH PROBE	Solvent = distilled1 Fill_Rate = 60 mL/min Empty_Rate = 60 mL/min Volume = 20 mL Strokes = 4
(2)	SPE SELECT	Cartridge = Seppak+

	Technique name	Technique parameters
(3)	SPE LOAD	Working_solvent = distilled1 Rate = 30 mL/min Empty_rate = 20 mL/minVolume = 1 mL Level = 0 From = methanol To = Organic_waste Gap = 0.1 mL
(4)	SPE LOAD	Working_solvent = distilled1 Rate = 30 mL/min Empty_rate = 20 mL/minVolume = 1 mL Level = 0 From = ethyl acetate To = Organic_waste Gap = 0.1 mL
(5)	SPE LOAD	Working_solvent = distilled1 Rate = 30 mL/min Empty_rate = 20 mL/minVolume = 1 mL Level = 0 From = methanol To = Organic_waste Gap = 0.1 mL
(6)	SPE WASH	Solvent = distilled1 Rate = 30 mL/min Empty_rate = 20 mL/min Volume = 3 mL To = Waste
(7)	WASH PROBE	Solvent = sample Fill Rate = 60 mL/min Empty_rate = 60 mL/min Volume = 15 mL Strokes = 3
(8)	SPE WASH	Solvent = sample Rate = 30 mL/min Empty_rate = 20 mL/min Volume = 100 mL To = Waste

	Technique name	Technique parameters
(9)	WASH PROBE	Solvent = distilled1 Fill Rate = 60 mL/min Empty_rate = 60 mL/min Volume = 10 mL Strokes = 2
(10)	ELEMENT PURGE	Element = Seppak+ Dispose = No Gas = Purge 6 Level = 0 Clear_time = 0.2 min Purge_time = 1 min To = Organic_waste
(11)	SPE LOAD	Working_solvent = ethyl acetate Rate = 4.0 mL/min Empty_rate = 4.0 mL/min Volume = 3.5 mL Level = 0 From = ethyl acetate To = elution Gap = 0.1 mL
(12)	GAS PURGE	Gas = Purge 6 To = Organic_waste Level = 900 Clear_time = 0 min Purge_time = 0.4 min
(13)	ELEMENT PURGE	Element = Seppak+ Dispose = No Gas = Purge 6 Level = 0 Clear_time = 0 min Purge_time = 0.3 min To = elution
(14)	SPE LOAD	Working_solvent = ethyl acetate Rate = 4.0 mL/min Empty_rate = 4.0 mL/min Volume = 3.5 mL Level = 0 From = methanol To = methelut Gap = 0.1 mL

	Technique name	Technique parameters
(15)	BATCH+PIPETTE	Working_solvent = ethyl acetate Fill_rate = 4 mL/min Empty_Rate = 4 mL/min Asperate_level = 60 Dispense_level = 560 Volume = 0.5 mL Gap = 0.1 mL From = d10-phenan To = elution Sample_count = All
(16)	WASH PROBE	Solvent = ethyl acetate Fill_Rate = 6.0 mL/min Empty_Rate = 6.0 mL/min Volume = 2 mL Strokes = 4
(17)	MIX	Working_solvent = ethyl acetate Fill_Rate = 6.0 mL/min Empty_Rate = 6.0 mL/min Asperate_level = 250 Dispense_level = 300 Volume = 2.5 mL Gap = 0.1 mL Count = 2 To = elution
(18)	WASH PROBE	Solvent = ethyl acetate Fill_Rate = 6.0 mL/min Empty_Rate = 6.0 mL/min Volume = 2 mL Strokes = 4
(19)	PIPETTE	Working_solvent = ethyl acetate Fill_Rate = 4.0 mL/min Empty_Rate = 4.0 mL/min Asperate_level = 270 Dispense_level = 550 Volume = 4 mL Gap = 0.2 mL From = elution To = Splspike

	Technique name	Technique parameters
(20)	MIX	Working_solvent = ethyl acetate Fill_Rate = 6.0 mL/min Empty_Rate = 6.0 mL/min Asperate_level = 150 Dispense_level = 150 Volume = 3 mL Gap = 0.1 mL Count = 1 To = Washprobe
(21)	GAS PURGE	Gas = Purge 6 To = Organic_waste Level = 900 Clear_time = 0 min Purge_time = 0.3 min
(22)	BUBBLE MIX	Gas = Purge 6 To = Washprobe Level = 0 Clear_time = 0 min Purge_time = 0.3 min
(23)	WASH PROBE	Solvent = ethyl acetate Fill_Rate = 6.0 mL/min Empty_Rate = 6.0 mL/min Volume = 1 mL Strokes = 2
(24)	SPE DONE	Dispose = No